FIG. 1

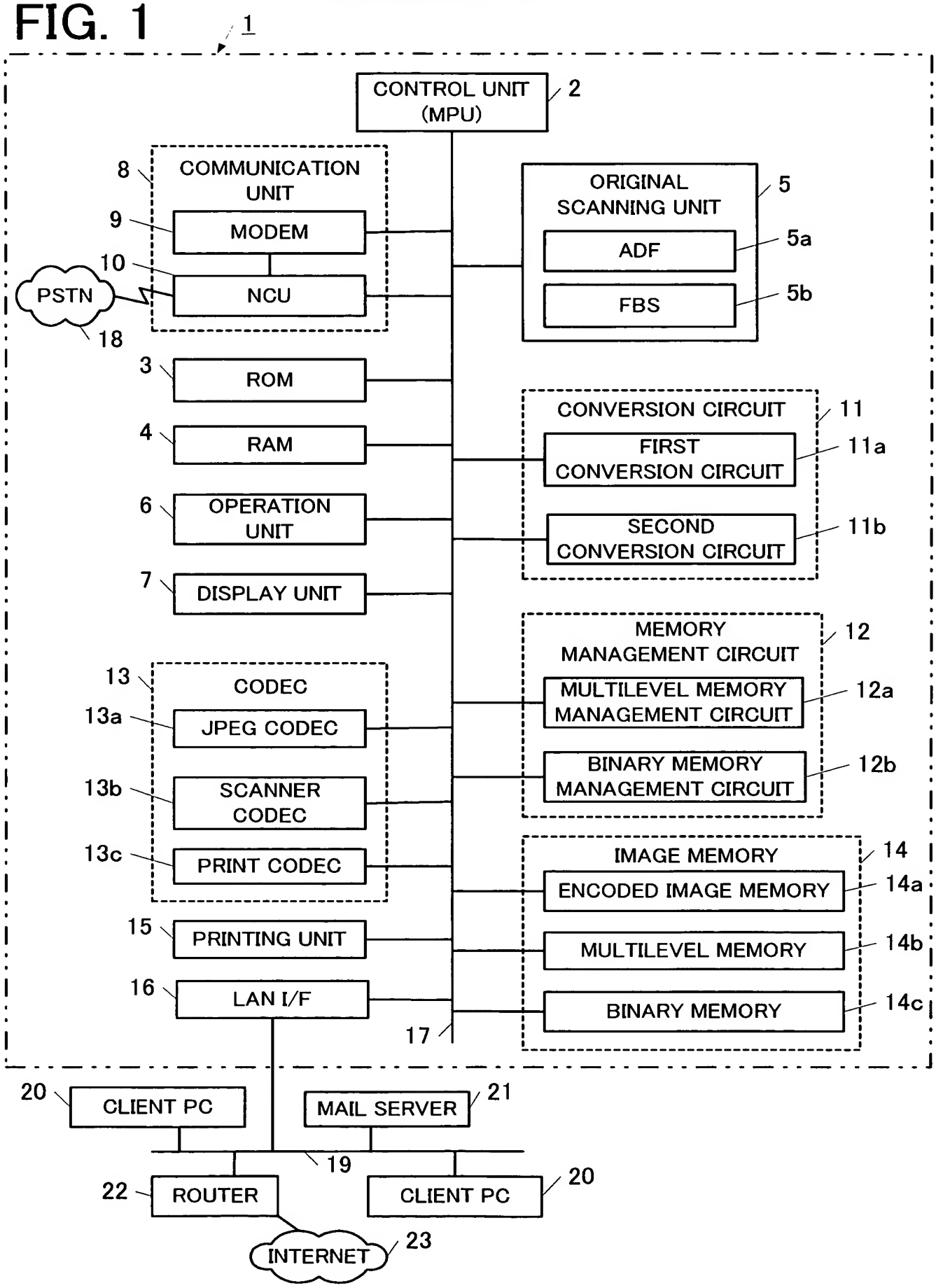
1
CONTROL UNIT (MPU)
2
8
COMMUNICATION UNIT
9
MODEM
10
NCU
PSTN
18
ORIGINAL SCANNING UNIT
5
ADF
5a
FBS
5b
3
ROM
4
RAM
6
OPERATION UNIT
7
DISPLAY UNIT
CONVERSION CIRCUIT
11
FIRST CONVERSION CIRCUIT
11a
SECOND CONVERSION CIRCUIT
11b
MEMORY MANAGEMENT CIRCUIT
12
MULTILEVEL MEMORY MANAGEMENT CIRCUIT
12a
BINARY MEMORY MANAGEMENT CIRCUIT
12b
13
CODEC
13a
JPEG CODEC
13b
SCANNER CODEC
13c
PRINT CODEC
IMAGE MEMORY
14
ENCODED IMAGE MEMORY
14a
MULTILEVEL MEMORY
14b
BINARY MEMORY
14c
15
PRINTING UNIT
16
LAN I/F
17
20
CLIENT PC
MAIL SERVER
21
19
22
ROUTER
CLIENT PC
20
INTERNET
23

FIG. 2

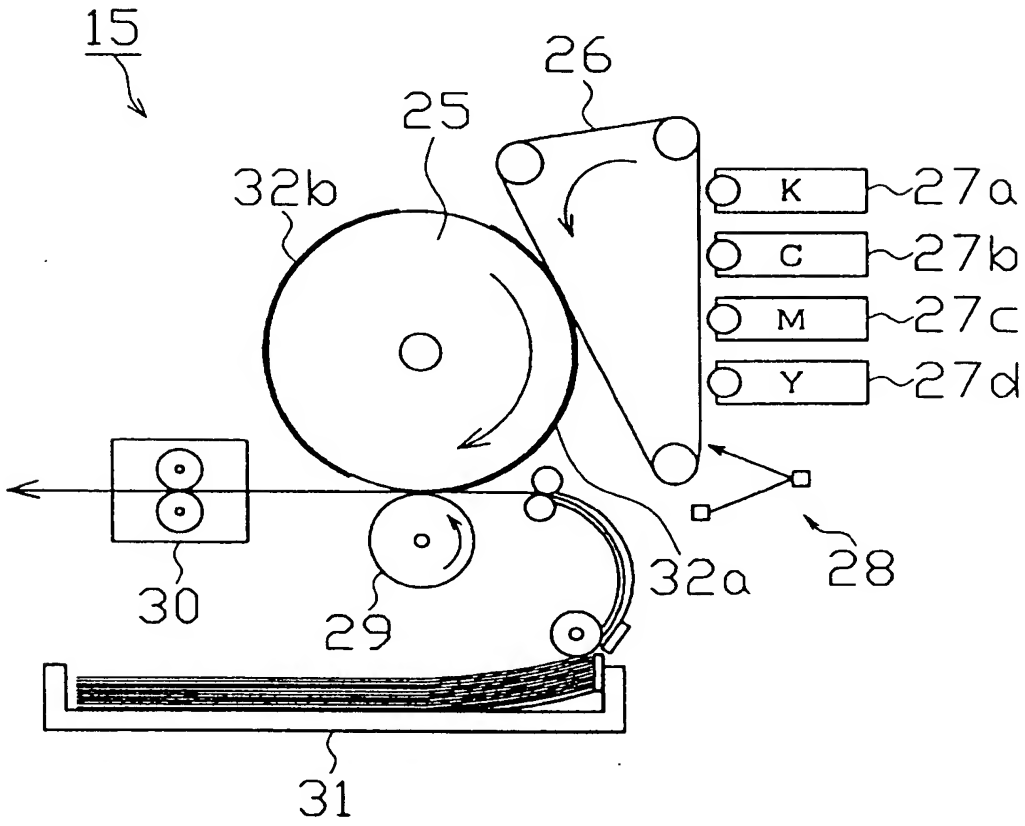

FIG. 3

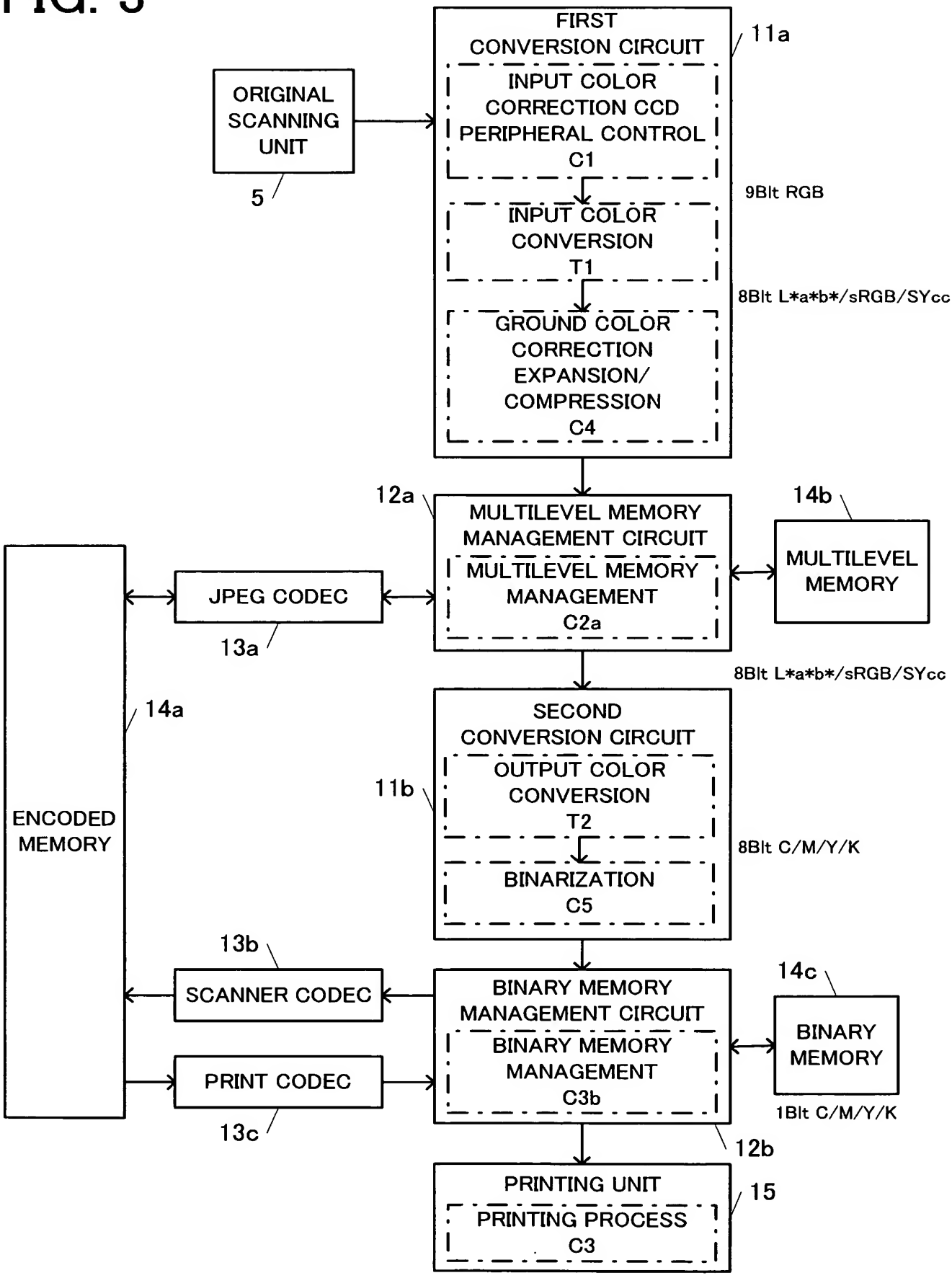
FIRST CONVERSION CIRCUIT
11a
ORIGINAL SCANNING UNIT
5
INPUT COLOR CORRECTION CCD PERIPHERAL CONTROL C1
9Bit RGB
INPUT COLOR CONVERSION T1
8Bit L*a*b*/sRGB/SYcc
GROUND COLOR CORRECTION EXPANSION/ COMPRESSION C4
12a
MULTILEVEL MEMORY MANAGEMENT CIRCUIT
MULTILEVEL MEMORY MANAGEMENT C2a
14b
MULTILEVEL MEMORY
JPEG CODEC
13a
8Bit L*a*b*/sRGB/SYcc
14a
ENCODED MEMORY
SECOND CONVERSION CIRCUIT
11b
OUTPUT COLOR CONVERSION T2
8Bit C/M/Y/K
BINARIZATION C5
13b
SCANNER CODEC
14c
BINARY MEMORY MANAGEMENT CIRCUIT
BINARY MEMORY MANAGEMENT C3b
BINARY MEMORY
1Bit C/M/Y/K
PRINT CODEC
13c
12b
PRINTING UNIT
15
PRINTING PROCESS C3

FIG. 4

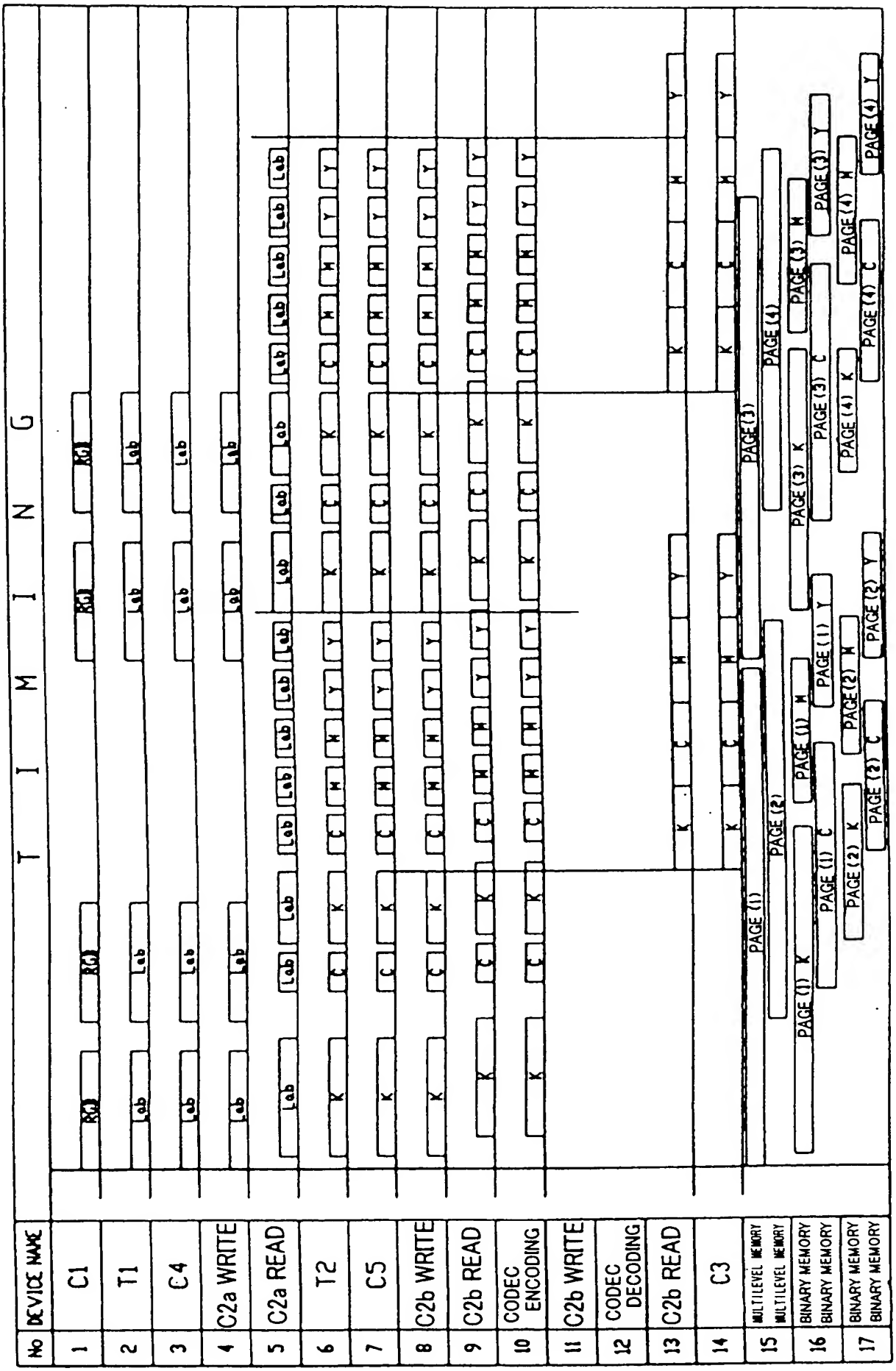
No
DEVICE NAME
TIMING
1 C1
2 T1
3 C4
4 C2a WRITE
5 C2a READ
6 T2
7 C5
8 C2b WRITE
9 C2b READ
10 CODEC ENCODING
11 C2b WRITE
12 CODEC DECODING
13 C2b READ
14 C3
15 MULTILEVEL MEMORY
16 MULTILEVEL MEMORY
17 BINARY MEMORY
BINARY MEMORY
BINARY MEMORY
RGB
Lab
K
C
M
Y
PAGE (1)
PAGE (2)
PAGE (3)
PAGE (4)

FIG. 5

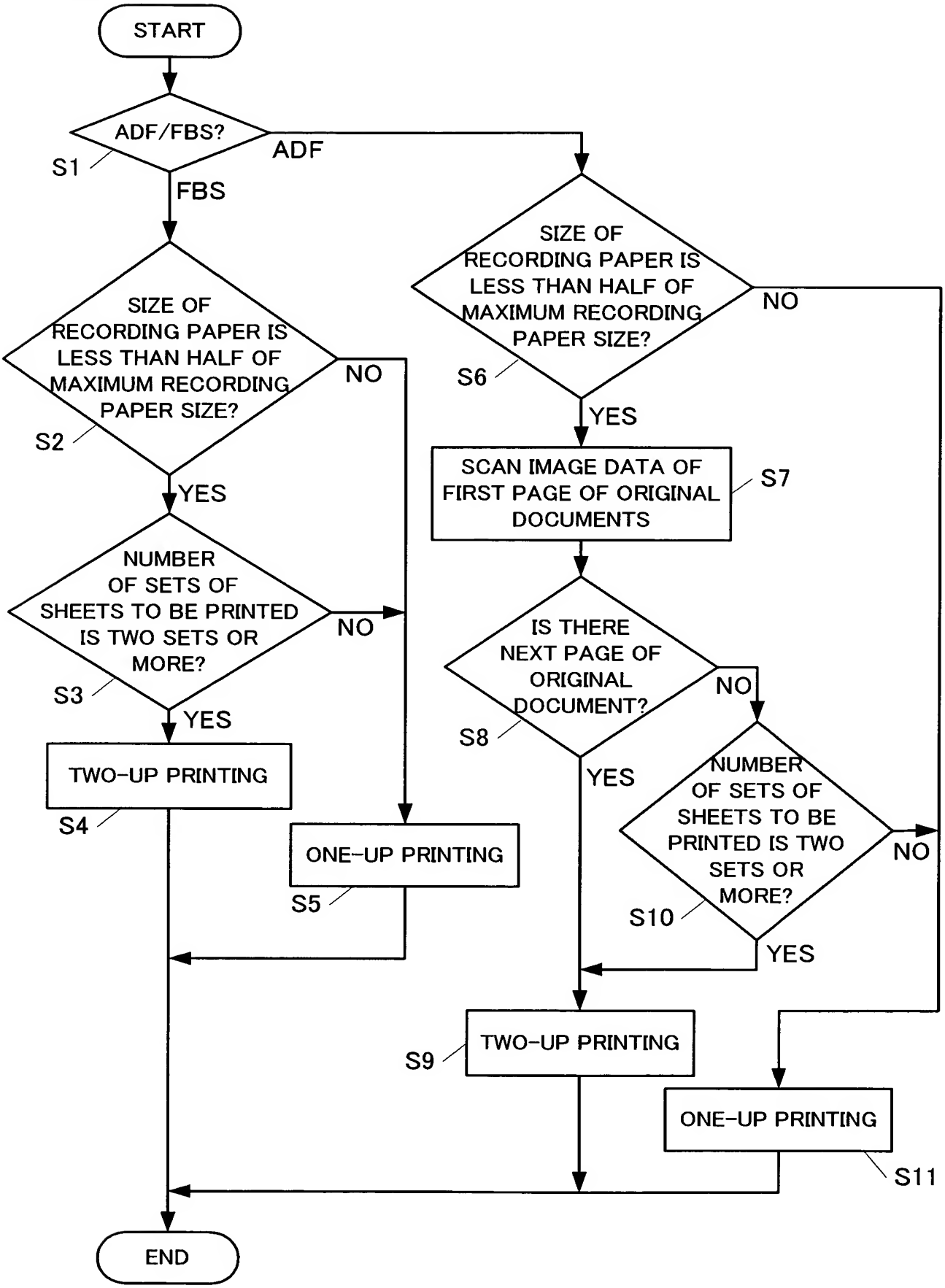
START
ADF/FBS?
S1
ADF
FBS
SIZE OF RECORDING PAPER IS LESS THAN HALF OF MAXIMUM RECORDING PAPER SIZE?
S2
NO
YES
NUMBER OF SETS OF SHEETS TO BE PRINTED IS TWO SETS OR MORE?
S3
NO
YES
TWO-UP PRINTING
S4
ONE-UP PRINTING
S5
SIZE OF RECORDING PAPER IS LESS THAN HALF OF MAXIMUM RECORDING PAPER SIZE?
S6
NO
YES
SCAN IMAGE DATA OF FIRST PAGE OF ORIGINAL DOCUMENTS
S7
IS THERE NEXT PAGE OF ORIGINAL DOCUMENT?
S8
NO
YES
NUMBER OF SETS OF SHEETS TO BE PRINTED IS TWO SETS OR MORE?
S10
NO
YES
TWO-UP PRINTING
S9
ONE-UP PRINTING
S11
END

FIG. 6A

TYPE NO.	DATA 1	DATA 2
0	MONOCHROME DATA	MONOCHROME DATA
1	MONOCHROME DATA	COLOR DATA
2	COLOR DATA	MONOCHROME DATA
3	COLOR DATA	COLOR DATA

FIG. 6B

TYPE NO.	PRINTING PROCEDURE
0	FEED | K | K | DIS-CHARGE
1-3	FEED | YY | MM | CC | KK | DIS-CHARGE
(1)	FEED | K | Y | M | C | K | DIS-CHARGE
(2)	FEED | Y | M | C | K | K | DIS-CHARGE